The 28th International Federation for Heat Treatment and Surface Engineering 2023

Manuscript Preparation Instructions

It is strongly recommended that authors use the Template to format their papers. The template includes all items with proper format such as headings, fonts, and spacing. Simply begin typing in the appropriate sections, removing instructional and descriptive text.
Use Microsoft Word to prepare your document.
All manuscript should be converted to PDF upon uploading.

1. Style of manuscript

The paper will have the following elements: (1) Title, (2) Author(s), (3) Affiliation(s), Address (City and Zip code), Country, (4) Abstract, (5) Keywords, (6), Introduction, (7) Experiment or Theory, (8) Results, (9) Discussion, (10) Conclusions or Summary, (11) Acknowledgements (optional), (12) References, (13) Appendix (if needed). The Template will help with proper formatting.

Paper size: A4
Margins: Top: 20 mm, Bottom: 25 mm, Sides: 15 mm each
Extended abstract length: limitations: plenary lectures, keynote lectures , contributed oral and poster papers – 2 - 3 pages
Page numbering: do not use page numbering and do not otherwise insert pare numbers.

Title, Authors, and Affiliations:

- Title: Times New Roman, 14pt, Bold
- Author Name(s): Times New Roman, 12pt
- Author's Affiliation(s): Times New Roman, 9pt, Italic
- Justification: Left only

Abstract and Keywords:

- Abstract: Times New Roman, 8pt
- Keywords: Times New Roman, 8pt, Italic

Text:

- Font: Times New Roman, 10pt
- Column: Double column
- Space between columns: 10 mm
- Single space
- No space should be placed between paragraphs but the leading word should be indented
- Color: Black & white

Justifications: Use justification both left and right. Figures are to he embedded into the text in a manner that will be explained in detail later on tin this document.

Headings and subheadings in the text:

Font: Times New Roman, 10pt, bold

Major headings: bold and centered

Minor headings: Left justify

Double spacing should be used before and after major headings, and before subheadings

2. Preparation of manuscript

2.1 Title

(1) The title of the paper should reflect the contents suitably and concisely. Sequential numbered titling should be avoided.

(2) Abbreviated symbols, if not conventionally used, should be avoided.

(3) Description of element symbols

· When an element name is used as a symbol of material, the use of element symbols should be avoided and the name of the element should be fully spelled out.

· When the element name is used as a chemical symbol or adjectively used, the element symbol can be used.

(4) Expressions such as "Study on" or "On the" should be avoided as the start of the title.

(5) Definite articles and indefinite articles should be avoided as much as possible.

(6) Capitalize the first letter of each word other than prepositions, conjunctions and articles.

2.2 Description of author(s)

Both the first name and last name should be written out fully. Middle names can be abbreviated.

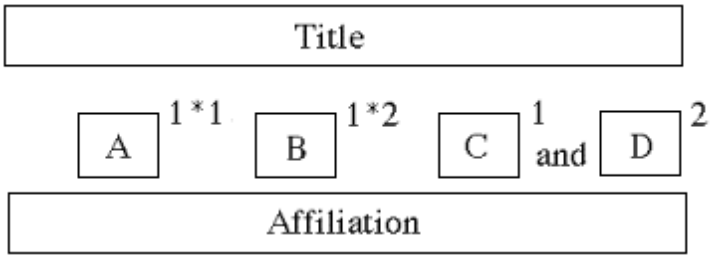
2.3 Description of affiliation(s)

(1) When authors belong to different research organizations, each organization should be designated by superscript numbers, in the form [1],[2] etc. The name of the department, name of the organization, and the address (city only) should be fully written out and should be separated by commas. The postal zip code and country name should also be given.

(2) The name of the research organization should be given under the names of the authors.

(3) When an author's present affiliation is different from the name of the organization in which the research was performed, it should be expressed as a footnote using an asterisk.

(4) For graduate students and undergraduate students, the affiliation should be expressed as a footnote using an asterisk



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2.4 Abstract

The abstract should give readers concise information about the content of the article and indicate the main results obtained and conclusions drawn. It should be self-contained with no reference to figures, tables, equations or bibliographic references.

2.5 Keywords

Except for proper nouns, all letters should be small letters.

(1) It is advisable to select keywords from the title and abstract, since these contain important words. However, keywords can also be selected from other parts of the manuscript.

(2) Keywords should be selected so as to be concrete meaningful words with as narrow definition as possible.
Critical, Stress →critical stress
Life→tool life, fatigue life

(3) Use keywords in noun form
Studied experimentally→ experimental study

(4) Name of elements, name of chemicals, name of compounds and so forth should be fully spelled out instead of using the symbol of the element.
CrMo steel→chromium molybdenum steel
E→Young's modulus, modulus of longitudinal elasticity

(5) Simplified symbols and abbreviated forms cannot be used.
ESR→electro-slag remelting, electro-spin resonance

(6) Use of compounded words and phrases should be avoided unless they are commonly used.

(7) Be careful not to omit popular words.

(8) In case that the authors have difficulty deciding whether to include a word or not, please select them as keywords.

2.6 Heading in Text

Major heading: 1., 2.,···

Sub-heading: 1.1, 2.1,···

Sub-sub-heading: 1.1.1, 2.1.1,···
(1) (2)···
(a) (b)···

2.7 Tables and figures

2.7.1 Tables (see example in the Template)

(1) Tables should be placed as closely to the first reference in the text. Please make sure that each table appears clearly. Tables should be numbered consecutively, and Arabic numerals should be used.

(2) Table caption should be centered above the Table, starting with a capital letter and ending with a period.

(3) Headings in the Table should begin with a capital letter.

(4) The size of table text is 10 point or bigger.

2.7.2 Figures (including photographs) (see example in the Template)

(1) General instructions:

1) Figures should be sequentially numbered in the following manner: Figure 1, Figure 2. If a figure is divided into several parts, each part should be labeled as follows: (a), (b), (c).
2) The locations of (a), (b), (c) are in the same position for each part shown below for example.

3) Figure captions should be written below the figure, starting with a capital letter and ending with a period.
4) The original photograph should not be of a once-half-tone type. Clear contrast, and vivid lines and contours are required. The quality of photos should be good enough to review.

(2) Drawing instructions:

Please confirm that figures are printed clearly before submitting your manuscript. Please note that the hard copy will be printed in black and white.

2.7.3 Expression of physical quantities in figures and tables

Expression of the quantity symbol is required.

In the Figures and Tables, physical quantities should be expressed with use of the quantity symbol as

shown in the following Figure.
The angle should be expressed as 10°, 20°...

Physical Quantity, ***Symbol*** **/ Unit**
(in Roman letter) *(in Italic)* (in Roman)

e.g.) Time, t / s
Temperature, T / K
Current Density, I / $A \cdot m^{-2}$
Residual Stress, σ / MPa

2.8 Numerical equation

Numerical equations in the main text should be expressed as, for example, x/3,a/(b + c) instead of $\frac{x}{3}$, $\frac{a}{b+c}$.
The exponential symbol should be expressed as “exp”, if possible.
The expression of $4*10^{-2}$ is used instead of $4 \cdot 10^{-2}$.

2.9 Decimal point and thousand-unit comma

The decimal point for numerals should be put at the lower level of a numeral.
The thousand-unit comma should not be used to prevent confusion with decimal points.

2.10 Unit

Use International System of Units (SI - MKSA) as primary units.

2.11 Numerical, Roman and Greek letters used for Tables and numerical equations

Examples: quantity symbols:
length; *l*, area; *A, S*, volume; *V, v*, pressure; *P*, force; *F*, time; *t*, vector; *A, a*,
scientific constants; *N, k*
mathematical symbols exponential function; exp
(when expressed by *e*, it is printed in italic letters)
natural logarithms; ln *x*
general logarithms; log *x*
sine; sin
cosine; cos
tangent; tan

2.12 Acknowledgments

Acknowledgments should be made at the end of the manuscript, leaving an interval of one line after the body of the text. Financial assistance, the use of apparatus and the receipt of research funding and so on, should all be acknowledged in this section.

2.13 Appendix

Tables and Figures and equation numbers in the Appendix, should be numbered separately from the numbering in the main text, by writing: A1, A2, etc.

2.14 Footnotes and References

(1) No footnotes are allowed in the main text. Comments and notes are to be shown in the references.

(2) Citation of references should be made sequentially, in the form [1, 2)] or [3-6)]. List of References should be attached.

(3) One reference number should correspond to one reference. Even if another reference of the same author is cited, allocate a different reference number and do not use the expression, "ibid".

(4) A reference is described in the order: names of authors (no need for comma before "and"), the abbreviated name of the journal, volume number (year), page. Volume numbers should be expressed in Gothic type, and the names of books in italics. The abbreviation of foreign journals should follow the ISO standard.

(5) When there are less than 15 authors, all of the names should be given, instead of using "et al".

(Example of journal)

1) S. R. Pati and M. Cohen: Acta Metall. **17** (1969) 189-200.

2) W. Köster, T. Gödecke and D. Heine: Z. Metallk. **63** (1972) 802-805.

(Example of a separate volume)

3) W. Hume-Rothery, R. E. Smallman and C. W. Haworth: *The Structure of Metals and Alloys*, (The Metals and Metallurgy Trust of the Institute of Metals and Institution of Metallurgists, London, 1969) pp. 336-342.

4) E. Houdremont: *Handbuch der Sonderstahlkunde*, 3. Aufl., 2. Bd., (Springer-Verlag, Berlin, 1956) pp. 934-939.

(Example of proceedings)

5) C. Wagner: *Steelmaking*, The Chipman Conference, ed. by J. F. Elliott, (The M.I.T. Press, Cambridge, Massachusetts, 1965) pp. 19-25.

6) K. Abe and Y. Sato: *Proc. 4th Int. Conf. on Rapidly Quenched Metals*, ed. by T. Masumoto and K. Suzuki, (The Japan Inst. Metals, 1982) pp.19-25.

7) T. Yamada: Collected Abstracts of the 1999 Autumn Meeting of the Japan Inst. Metals (1999) pp.101-102.

(Example of footnotes)

8) $1eV=1.60218\times10^{-19}$